

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with B. Noel Kivlin (Reg. No. 33,929) on January 21, 2010.

3. Amend the claims as follows:

1. (Currently Amended) A method for use in a distributed management framework comprising a plurality of applications, wherein each of the plurality of applications is configured to make function calls to standard programming functions, the method comprising:

inserting a respective agent into each of the plurality of applications upon a launch of each of the plurality of applications;

by using the agents, to intercept intercepting the function calls to the standard programming functions made by each of the plurality of applications, wherein each of the standard programming functions comprises memory functions and implementation program code which is located external to each of the plurality of applications calling the standard programming functions;

routing the function calls to alternative implementations of the standard programming functions, wherein each of the alternative implementations of the standard programming functions is internal to a respective each of the plurality of applications calling the standard programming functions;

executing one of the alternative implementations of the standard programming functions inside an application process of one of the plurality of applications instead of executing the implementation program code of the corresponding standard programming function, wherein the executed one of the alternative implementations of the standard programming functions replaces functionality of the corresponding standard programming function; and

using the alternative implementations of the standard programming functions to collect availability metrics for each of the plurality of applications.

2. (Canceled)

3. (Original) The method of claim 1, wherein the intercepting the function calls comprises intercepting the function calls in a production environment.

4. (Canceled)

5. (Previously Presented) The method of claim 1, further comprising: modifying program code of at least one of the plurality of applications to enable the intercepting

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the function calls to the standard programming functions.

6. (Previously Presented) The method of claim 1, further comprising: using the availability metrics for performance management of each of the plurality of applications in the distributed management framework.

7. (Original) The method of claim 1, further comprising: configuring the distributed management framework to monitor a subset of the plurality of applications.

8. (Previously Presented) The method of claim 1, further comprising: aggregating the availability metrics for each of the plurality of applications at a console for performance management.

9. (Currently Amended) A computer-readable storage medium comprising program instructions for use in a distributed management framework comprising a plurality of applications, wherein each of the plurality of applications is configured to make function calls to standard programming functions, wherein the program instructions are computer- executable to implement:

inserting a respective agent into each of the plurality of applications upon a launch of each of the plurality of applications;

by using the agents, to intercept intercepting the function calls to the standard programming functions made by each of the plurality of applications, wherein each of

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the standard programming functions comprises memory functions and implementation program code which is located external to each of the plurality of applications calling the standard programming functions;

routing the function calls to alternative implementations of the standard programming functions, wherein each of the alternative implementations of the standard programming functions is internal to a respective each of the plurality of applications calling the standard programming functions;

executing one of the alternative implementations of the standard programming functions inside an application process of one of the plurality of applications instead of executing the implementation program code of the corresponding standard programming function, wherein the executed one of the alternative implementations of the standard programming functions replaces functionality of the corresponding standard programming function; and

using the alternative implementations of the standard programming functions to collect availability metrics for each of the plurality of applications.

10. (Previously Presented) The computer-readable storage medium of claim 9, wherein the intercepting the function calls comprises intercepting the function calls in a production environment.

11. (Canceled)

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12. (Previously Presented) The computer-readable storage medium of claim 9, wherein the program instructions are further computer-executable to implement: modifying program code of at least one of the plurality of applications to enable the intercepting the function calls to the standard programming functions.

13. (Previously Presented) The computer-readable storage medium of claim 9, wherein the program instructions are further computer-executable to implement: aggregating the availability metrics for each of the plurality of applications at a console for performance management.

14. (Currently Amended) A system comprising:

at least one processor; and

at least one memory coupled to the at least one processor, wherein the at least one memory stores program instructions that are executable by the at least one processor to:

insert a respective agent into each of the plurality of applications upon a launch of each of the plurality of applications;

use the agents to intercept one or more function calls to one or more standard programming functions made by each of the plurality of applications, wherein each of the one or more standard programming functions comprises memory functions and implementation program code which is located external to each of the plurality of applications calling the one or more standard programming functions;

route the function calls to alternative implementations of the one or more standard programming functions, wherein each of the alternative implementations of the one or more standard programming functions is internal to a respective each of the plurality of applications calling the one or more standard programming functions; and

~~perform~~ execute one of the alternative implementations of the standard programming functions inside an application process of one of the plurality of applications instead of executing the implementation program code of the corresponding standard programming function, wherein the ~~performed~~ executed one of the alternative implementation of the standard programming functions replaces functionality of the corresponding standard programming function; and

use the alternative implementations of the one or more standard programming functions to collect availability metrics for each of the plurality of applications.

15. (Previously Presented) The system of claim 14, wherein the function calls are intercepted in a production environment.

16. (Canceled)

17. (Previously Presented) The system of claim 14, wherein the program instructions are further executable by the at least one processor to: modify program code of at least one of the plurality of applications to enable the interception of the function calls to the standard programming functions.

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18. (Previously Presented) The system of claim 14, wherein the program instructions are further executable by the at least one processor to: aggregate the availability metrics for each of the plurality of applications at a console for performance management.

19. (Currently Amended) A system for use in a distributed management framework comprising a plurality of applications, wherein each of the plurality of applications is configured to make function calls to standard programming functions, the system comprising:

means for inserting a respective agent into each of the plurality of applications upon a launch of each of the plurality of applications;

means for using the agents to intercept the function calls to the standard programming functions made by each of the plurality of applications, wherein each of the standard programming functions comprises memory functions and implementation program code which is located external to each of the plurality of applications calling the standard programming functions;

means for routing the function calls to alternative implementations of the standard programming functions, wherein each of the alternative implementations of the standard programming functions is internal to a respective each of the plurality of applications calling the standard programming functions;

means for executing one of the alternative implementations of the standard programming functions inside an application process of one of the plurality of

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applications instead of executing the implementation program code of the corresponding standard programming function, wherein the executed one of the alternative implementations of the standard programming functions replaces functionality of the corresponding standard programming function; and

means for using the alternative implementations of the standard programming functions to collect availability metrics for each of the plurality of applications.

20.-28. (Canceled)

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

CONCLUSION

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

6. Swimmer et al. U.S. Patent 7,555,777 B2, Chilimbi et al. U.S. Patent 7,587,709 B2, and Li et al. U.S. Publication No. 2003/0056200 A1 disclose intercepting a system call.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KimbleAnn Verdi whose telephone number is (571)270-1654. The examiner can normally be reached on Monday-Friday 7:30am-5:00pm EST.

8. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung Sough can be reached on (571) 272-6799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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01/29/10
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